### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

99.28 File #:

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-021845 Address: 333 Burma Road **Date Inspected:** 18-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. ZHU ZHONG HAI **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segment

### **Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

#### 1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Shielded Metal Arc Welding of Fillet welds joining the cantilever bracket to edge plate weld joint located on 12AW at cross beam side, Panel Point (PP-112.5). The weld is designated as OBE12C-031 & 032. The welder is identified as 046709. ZPMC QC Mr. ZHOU PENG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2113-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Fillet welds joining the cantilever bracket to edge plate weld joint located on 12BW at cross beam side, Panel Point (PP-114.5). The weld is designated as OBE12C-019 & 020. The welder is identified as 041713. ZPMC QC Mr. ZHOU PENG was onsite monitoring the

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welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2113-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Fillet welds joining the cantilever bracket to edge plate weld joint located on 12CW at cross beam side, Panel Point (PP-115.5). The weld is designated as OBE12C-023 & 024. The welder is identified as 041713. ZPMC QC Mr. ZHOU PENG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2113-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the cantilever bracket to edge plate weld joint located on 12AE at cross beam side, Panel Point (PP-112.5). The weld is designated as OBE12C-033. The welder is identified as 044504. ZPMC QC Mr. WANG LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2214-TC-U4b-FCM-1.

### 2. NDT:

Ultrasonic Testing (UT) (A, B, C and D-Scan):

UT carried out as per the ABF submitted UT Report No UT-12W-039.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between edge plate to deck plate hold back weld joint located on 12AW at counter weight side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows: CA3006-006 & CA3012-002.

Ultrasonic Testing (UT) (A, B, C and D-Scan):

UT carried out as per the ABF submitted UT Report No UT-CB17-010 R1.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between bottom plate to side plate hold back weld joint located on CB-17 at east side plate. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows: CB3001A-017-004, CB3001A-017-006.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

No relevant conversations were reported on this date.

### Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Pillai,Santosh	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer